

user mode An access mode for applications while they are running on the CPU that allows restricted access to all hardware devices and memory in the computer. This mode makes it difficult for the running application to corrupt and crash the operating system. System-level applications may need more access than is allowed and must use kernel mode instead.

Windows Display Driver Model (WDDM) A standard API for writing device drivers that are compatible with the newer graphical subsystem that is part of Windows 7.

Windows Driver Foundation (WDF) A standard for writing device drivers that interact with Windows 7. This standard replaces WDM and adds new features such as support for user mode device drivers.

Windows Driver Model (WDM) An older standard for writing device drivers that interact with Windows. Device drivers that use this standard are still supported, but should be replaced with drivers that use the new WDF architecture.

Windows Hardware Quality Labs (WHQL) A service provided by Microsoft to hardware developers and vendors to test their hardware with different versions of Windows. This testing only validates that a device works with Windows; it does not compare devices.

Windows Imaging Format (WIM) A format to store images of applications and operating systems in image files. These images represent customized installations that can be distributed to other computers and installed using a scripted solution.

Review Questions

1. A friend has asked you which version of Windows 7 should be purchased to start a new multimedia-based home entertainment system. Your friend will not require business support features, but will require support communicating with an Xbox 360. Which version of Windows 7 do you recommend?
 - a. Windows 7 Ultimate
 - b. Windows 7 Home Basic
 - c. Windows 7 Home Premium
 - d. Windows 7 Enterprise
2. Windows 7 supports only cooperative multitasking. True or False?
3. The _____ Processing Unit is a hardware component capable of quickly drawing items to the screen.
4. A graphics card capable of running the Aero Theme must have drivers certified to which standard (select two)?
 - a. DirectX
 - b. WDDM
 - c. WDF
 - d. WDM
 - e. Vendor
5. All device drivers are considered safe to install if they are _____ by Microsoft.
 - a. compiled
 - b. certified WDDM
 - c. digitally signed
 - d. reviewed by WHQL
6. You are considering purchasing a USB microphone. You are not sure it is compatible with Windows 7. What type of logo should you look for on the product packaging?
 - a. WHQL
 - b. compatible with Windows 7
 - c. WDDM driver

- d. Vendor certified
e. Ultimate
7. Your workstation is running Windows 7 Professional and you decide to share a folder on your computer. Twenty-two people in your office are trying to connect to that folder at the same time over the network. The first 20 people can connect, the other two cannot. To fix this you could _____.
- a. buy a computer, software, and licenses to run Windows Server 2003
b. restart your computer
c. make sure the network card is using WDF device drivers
d. none of the above
8. Computers that belong to the same domain can access a common security database of user and computer account information. This type of database on Windows 2003 domain controller servers is also known as a(n) _____ database.
- a. primary
b. workgroup
c. jet
d. Active Directory
e. backup
9. Which of the following is an advantage of domain networking?
- a. no central security database
b. built in to every version of Windows 7
c. centralized security management
d. support for up to 10 simultaneous shared connections
10. A new company will have 30 workstations in one building sharing a single network. All users must be able to share files and printers with each other. Access to shared information must be secure and simple to administer. The best technology for this system is:
- a. Workgroups
b. Windows Peer-to-Peer Networking
c. People to People
d. Domain Networking
11. Your computer is capable of starting more than one operating system. Windows 7 Ultimate and Windows 2003 are both installed, but to different hard disks in the computer. A third hard disk will be used to hold data that is used by both operating systems. To make this disk accessible in both operating systems, you decide to format it as (select all that apply):
- a. UDF
b. NTFS
c. FAT32
d. FAT16
12. Your computer is capable of starting more than one operating system. Windows 7 Ultimate and Windows 95 SR1 are both installed, but to different hard disks in the computer. A third hard disk will be used to hold data that is used by both operating systems. To make this disk accessible in both operating systems you decide to format it as:
- a. UDF
b. NTFS
c. FAT32
d. FAT16

13. The main network protocol used to communicate between Windows 7 computers is:
 - a. TCP/IP
 - b. X.25
 - c. SLIP
 - d. Peer-to-Peer
 - e. Teredo
14. Window 7's version of TCP/IP supports the newer standard called _____.
 - a. IPv4
 - b. IPv6
 - c. Teredo
 - d. WDDM
 - e. IPv8
15. A feature of Windows 7 designed to provide easy access to helpful mini-applications and utilities is called _____.
 - a. Start button
 - b. HomeGroups
 - c. Search
 - d. Teredo
 - e. Gadgets
16. Which networking component included with Windows 7 supports sending IPv6 traffic over IPv4 networks?
 - a. Teredo
 - b. Windows Plug and Play Networking
 - c. TCP/IP
 - d. X.25
 - e. .NET Framework 3.5
17. A driver that has full access to all hardware and the memory of the computer has what type of security level?
 - a. digitally signed
 - b. kernel mode
 - c. user mode
 - d. WHQL tested
 - e. WDDM
18. A hardware vendor's product has passed Microsoft testing and has received a certified logo. Updated drivers for the hardware can be obtained from the manufacturer and from which Microsoft Web site?
 - a. Windows Marketplace
 - b. Windows Driver Distribution
 - c. Microsoft Support
 - d. Windows Update

19. Some hardware can be added to the computer without having to restart or power down the computer. After a short period of time the device driver automatically loads and the hardware is available to applications and the user. This type of hardware is considered compatible with what type of technology?
- Teredo
 - WDDM
 - Plug and Play
 - Legacy
20. You have purchased a new 72 GB disk drive and would like to format it in Windows 7 with a single partition that uses up all the space on the drive. You can format the file system on the partition as (choose all that apply):
- FAT16
 - FAT32
 - CDFS
 - NTFS
21. Software assurance customers can take advantage of extra applications provided with Windows 7 Enterprise edition. What feature included with this edition will allow legacy applications to run at the same time as other Windows 7 applications?
- BitLocker drive encryption
 - NTFS
 - UNIX native application support
 - XP Mode
 - Terminal Services
22. Which of the following is an advantage of HomeGroup computing?
- requires one or more expensive servers
 - supports 20 workstations
 - no security enforced
 - simple to set up initially
23. A thread represents the files, data, and instructions that make up a single running task or application. True or False?
24. After a computer crashes and restarts, what tool automatically runs and tries to determine a solution to the problem?
- Startup Repair Tool
 - Network Awareness Service
 - Network Repair Tool
 - Windows Boot Repair Services
25. Which of the following is a disadvantage of workgroup computing?
- requires one or more expensive servers
 - supports an unlimited number of workstations
 - no centralized security management
 - simple to set up initially